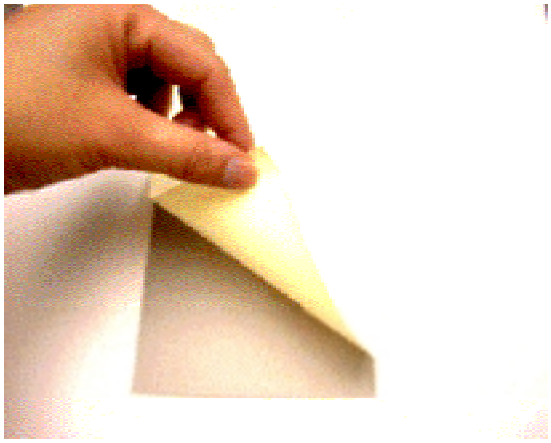
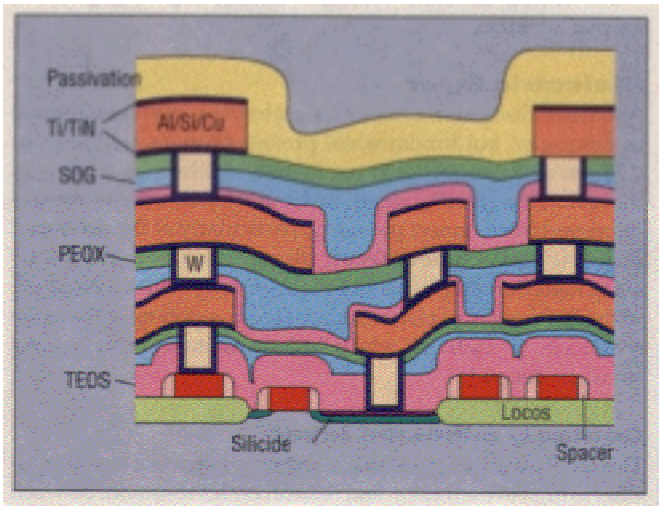
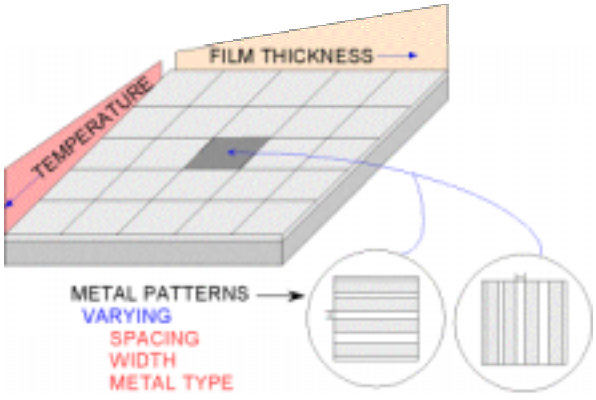
Adhesives

- Critical Issues
  - Polymer adhesion is largely dependent upon the coupling of surface and bulk properties, maximizable over a given temperature range relative to the polymer's glass transition temperature. The large variety of end-use applications requires a better understanding of polymer/substrate adhesion and an efficient method of determining optimal polymer/substrate combinations.
- Research Strategy
  - We are developing combinatorial methods for measuring interfacial debonding and adhesion of polymer coatings at a variety of interfaces including polymer-metal, polymer-ceramic, polymer-polymer and the polymer-biomaterials interface. The approach will be to design custom debonding and micro- libraries to measure effects of polymer coating thickness and temperature on debonding and adhesion using optical and nanomechanical test methodologies.







For more information ...

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